Health Canada Santé Canada

Your health and safety... our priority. *Votre santé et votre sécurité... notre priorité.*

Re-evaluation Note REV2013-15

Re-evaluation Update for Neonicotinoid Insecticides

(publié aussi en français)

30 December 2013

This document is published by the Health Canada Pest Management Regulatory Agency. For further information, please contact:

Publications
Pest Management Regulatory Agency
Health Canada
2720 Riverside Drive
A.L. 6604-E2
Ottawa, Ontario K1A 0K9

Internet: pmra.publications@hc-sc.gc.ca
healthcanada.gc.ca/pmra
Facsimile: 613-736-3758
Information Service:
1-800-267-6315 or 613-736-3799
pmra.infoserv@hc-sc.gc.ca

Canada

ISSN: 1925-0630 (print)
1925-0649 (online)

Catalogue number: H113-5/2013-15E (print version)
H113-5/2013-15E-PDF (PDF version)

© Her Majesty the Queen in Right of Canada, represented by the Minister of Health Canada, 2013

All rights reserved. No part of this information (publication or product) may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in a retrieval system, without prior written permission of the Minister of Public Works and Government Services Canada, Ottawa, Ontario K1A 0S5.

The re-evaluations of clothianidin, imidacloprid and thiamethoxam were announced in June 2012 (REV2012-02, *Re-evaluation of Neonicotinoid Insecticides*). The re-evaluations were initiated to assess the potential risk to pollinators in light of international updates to the pollinator risk assessment framework, including information requirements. This Re-evaluation Note provides an update on the status of these re-evaluations.

These re-evaluations consider all agricultural uses of these nitro-guanidine neonicotinoid insecticides (hereafter referred to as neonicotinoids) including soil and foliar applications, seed treatments, greenhouse and tree injection uses. Both acute higher-level exposures that can cause bee mortality and lower sub-lethal exposures that may cause subtler effects are being considered.

Health Canada's Pest Management Regulatory Agency (PMRA) is working cooperatively with the United States Environmental Protection Agency and the California Department of Pesticide Regulation who are also re-evaluating clothianidin, imidacloprid, and thiamethoxam as part of their registration review programs. Recently, the PMRA collaborated with these regulatory authorities and other stakeholders to develop a pollinator risk assessment framework. This framework was used to determine the data requirements for the re-evaluations in Canada and will be used in the evaluation of the potential pollinator effects of the neonicotinoids.

The PMRA, along with the United States Environmental Protection Agency and California Department of Pesticide Regulation, has been working with registrants to develop study protocols that will best address data requirements. Some of these data are currently being generated and additional study protocols are being developed.

In addition to conducting a pollinator risk assessment, the PMRA will assess the value of the neonicotinoids.

In an effort to expedite the re-evaluation, an interim assessment of pollinator risk will be conducted first using currently available data. During this first phase of the re-evaluation, an assessment of the value of corn and soybean seed treatments will also be completed.

Timelines for these reviews are provided in this document.

At any point during the re-evaluations, should evidence become available demonstrating reasonable grounds to believe that the environmental risk of a neonicotinoid is unacceptable, the PMRA will take appropriate regulatory action.

Evaluating Acute Higher-Level Exposures of Bees and Other Pollinators

In the spring of 2012, the PMRA received an unusually high number of incident reports of bee losses from corn growing regions across southern Ontario as well as one report from Quebec. After a thorough investigation, it was concluded that planting of corn seed treated with clothianidin and/or thiamethoxam contributed to the majority of bee mortalities. A summary of the evaluation has been published (*Evaluation of Canadian Bee Mortalities that Coincided with Corn Planting in Spring 2012*).

In response to the incidents, the PMRA developed measures to reduce risk to pollinators from exposure to dust generated during planting of insecticide-treated seed (*Pollinator Protection: Reducing Risk From Treated Seed*). These measures were developed in collaboration with the pesticide industry, international regulatory authorities, growers, beekeepers, and equipment manufacturers.

An interim evaluation of additional incidents that occurred in the 2013 growing season has been published (*Evaluation of Canadian Bee Mortalities in 2013 Related to Neonicotinoid Pesticides – Interim Report as of Sept. 26, 2013*).

The PMRA intends to implement the following measures for the 2014 planting season for corn and soybean production:

- use of dust-reducing seed flow lubricants;
- adherence to safer seed planting practices; and
- new pesticide and seed package labels with enhanced warning statements.

These measures were outlined in NOI2013-01: *Action to Protect Bees from Exposure to Neonicotinoid Pesticides*, which was published on 13 September 2013.

Evaluating Sub-Lethal Exposures of Bees and Pollinators

Research is ongoing to determine the cause of pollinator declines observed in many countries around the world. The available science suggests multiple factors may be involved, including: pests, diseases, weather, stress, poor nutrition, and pesticide exposure.

To expedite the re-evaluations, the PMRA is conducting an interim pollinator risk assessment for the neonicotinoids. The assessment will be based on pollinator data pertaining to clothianidin, imidacloprid and thiamethoxam currently available to the PMRA, including relevant published literature. This assessment will be completed in 2015.

Pollinator Protection During Re-evaluation

If new science emerges as the re-evaluations proceed that show an unacceptable risk to pollinators from neonicotinoid insecticides, the PMRA will take additional regulatory action to protect pollinators.

Assessing the Value of Neonicotinoids

In order to understand the context of neonicotinoid use, the PMRA will conduct a value assessment of clothianidin, imidacloprid, and thiamethoxam as part of these re-evaluations. This will consider the current use pattern, contribution of neonicotinoids to pest management practices and economic impact of neonicotinoids in the current Canadian agricultural environment. The PMRA will be working with registrants, provinces and other stakeholders to collect this information.

The PMRA will first conduct a value assessment of corn and soybean seed treatment uses, which will be completed in 2014.

Anticipated Timeline for the First Phase of the Re-Evaluation of the Neonicotinoids

In order to expedite the re-evaluations of the neonicotinoids, the assessment will be conducted in phases. In the first phase, an interim assessment of pollinator risk will be conducted. For this risk assessment, the PMRA will assess currently available data including published literature for all agricultural uses in an interim assessment

For the value assessment, the corn and soybean seed treatment uses will be evaluated first.

These assessments will be followed by public consultation periods. These will be opportunities for stakeholders to provide any comments, concerns or additional information.

The target year of completion for each re-evaluation activity (Phase I) is listed below:

Activity	Year
Investigation of 2013 Incidents	2013
Revised label requirements for treated corn and soybean seed	2014
Assessment of value of treated corn and soybean seed	2014
Public consultation	2014
Interim assessment of pollinator risk	2015
Public consultation	2015/2016

Additional Information

PMRA documents can be found in the Pesticides and Pest Management section of Health Canada's website at healthcanada.gc.ca/pmra. PMRA documents are also available through the Pest Management Information Service. Phone: 1-800-267-6315 within Canada or 1-613-736-3799 outside Canada (long distance charges apply); fax: 613-736-3798; e-mail: pmra.infoserv@hc-sc.gc.ca.